ARTIFICIAL BAIT STRUCTURE

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BACKGROUND AND SUMMARY OF THE INVENTION

This invention relates to a fishing lure, and more particularly to a fishing lure which acts to simulate live bait movement.

Common jig-type fishing lures include a fish hook having a mass of material, usually metal, formed around the end of the hook opposite the barb to create a jighead. An attachment eye is attached to and extends outwardly from the jighead to provide a point of connection to a fishing line. The jighead is often painted a bright color to attract the attention of a fish.

Typically, a fisherman attaches bait such as minnow, pork rind, or a plastic rubber worm, to the hook. When a conventional fishing jig, as described, is cast out and reeled in, the configuration of the jighead creates several drawbacks. First, since jigheads are typically uniform in shape and somewhat streamlined, the fishing jig tends to travel through the water in a straight path, drawing the bait similarly through the water in a straight path. Such straight line movement of the bait through the water does not typically attract fish.

In order to alleviate this problem, a live minnow is often attached to the fishing jig, such that the swimming movement of the minnow will attract fish. However, after being cast out and reeled in repeatedly, the minnow tires and tends to be drawn through the water in a straight path, defeating the original purpose for using the live bait. Further, the constant replacement of the minnow on the fishing jig can be troublesome and expensive.

As an alternative to the use of a live minnow, many attempts have been made to provide fishing jigs and/or artificial bait which simulate live bait movement. The most common attempt includes a mechanism, such as a fin, which causes the lure to wobble when the lure is pulled through the water by a fishing line. However, these types of lures are generally large in size and costly to manufacture.

A second drawback of using a fishing jig relates to the weight of a conventional fishing jig. Jigheads are typically made of metal, and hence normally sink and travel near the bottom of the lake or river where the exposed hook can be easily entangled in the weeds. It is well known in the fishing industry to render a hook weedless by providing a series of reedlike deflectors that originate from the shank of the hook and extend to a point near the barb of the hook. To be effective, the weed deflector must be stiff enough to deflect the weed so that it will not contact and become entangled in

the hook, while not being too stiff to interfere with the setting of the hook in the mouth of the fish. As with fishing lures which have attempted to simulate live bait movement, these modifications to the hook may be difficult and costly to manufacture.

Therefore, it is a primary object and feature of the present invention to provide an artificial bait structure for use with a conventional fishing jig which is simple and inexpensive to manufacture.

It is a further object and feature of the present invention to provide an artificial bait structure which simulates live bait movement and which discourages the entanglement of the fishing hook in weeds.

In accordance with the present invention, an artificial bait structure includes a head having a first forward end and a second rearward end. First and second generally flat fins or legs project rearwardly from the rearward end of the head along a longitudinal axis. Each leg is defined by a first inner edge and a second outer edge, and terminates at a rearward end. A projection extends rearwardly from the rearward end of each leg.

A rib extends along the outer edge of each leg between the head and the rearward end of the corresponding leg. In addition, protrusions or nipples project from the topside of the head and both sides of the each leg. The ribs and the nipples add surface area to the artificial bait structure, which, in turn, causes the legs to flutter so as to simulate the movement of live bait. Further, the generally flat surface area of the legs urges the artificial bait structure, and hence the fishing jig, upwardly when the artificial bait structure is drawn through the water keeping the fishing jig and the artificial bait out of weeds on the bottom of a lake or a river.

BRIEF DESCRIPTION OF THE DRAWINGS

The drawings furnished herewith illustrate the best mode of the present invention in which the above advantages and features are clearly understood from the following description of the illustrated embodiment.

In the drawings:

Fig. 1 is an isometric view of the artificial bait structure of the present invention;

Fig. 2 is a side elevational view of the artificial bait structure of Fig. 1;

Fig. 3 is a top plan view of the artificial bait structure of Fig. 1;

Fig. 4 is a bottom plan view of the artificial bait structure of Fig. 1;

Fig. 5 is a front elevational view of the artificial bait structure of Fig. 1;

Fig. 6 is a rear elevational view of the artificial bait structure of Fig. 1;

Fig. 7 is a side elevational view of the artificial bait structure of Fig. 1 mounted onto a fishing jig;

Fig. 8 is a side elevational view showing the artificial bait structure of Fig. 1 in a plurality of positions, in phantom, simulating live bait movement;

Fig. 9 is a bottom plan view showing the artificial bait structure of Fig. 1 in a plurality of positions, in phantom, simulating live bait movement; and

Fig. 10 is a cross-sectional view of the artificial bait structure of Fig. 7 taken along line 10-10.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to Figs. 1-6, the artificial bait structure of the present invention is generally designated by the reference numeral 10. The artificial bait structure 10 extends along a longitudinal front-rear axis and includes a head 12 having a first forward end 14 and a second rearward end 16. Head 12 further includes a generally planar lower surface 18 and a generally planar upper surface 20, which is integral and continuous with upper surfaces 22 and 24 defined by legs 26 and 28, respectively, as hereinafter described. Head 12 is defined by a U-shaped outer edge 30 which includes a first upper portion 32 perpendicular to the upper surface 20 of head 12, and a tapered or chamfered lower portion 34 which facilitates the removal of artificial bait structure 10 from a mold, as is known.

As previously described, artificial bait structure 10 includes first and second generally flat fins or legs 26, 28, respectively, projecting rearwardly from the rearward end 16 of head 12. Legs 26 and 28 define arcuate, convex outer edges 36 and 38, respectively, which extend between the rearward end 16 of head 12, and rearward ends 40, 42 defined by legs 26 and 28, respectively. Flexible projections 35 and 37 extend from rearward ends 40 and 42, respectively, and are offset in an inward direction from the longitudinal axis of legs 26 and 28, respectively. Artificial bait structure 10 further includes a joined portion 48 located immediately rearwardly of head 12 wherein a forward portion of legs 26 and 28 are joined to each other.

Legs 26 and 28 define inner edges 44 and 46, respectively, which extend from the joined portion 48 of the artificial bait structure 10, to the corresponding rearward end 40 and 42 of legs 26 and 28, respectively. Inner edges 44 and 46 include a first rearward linear portion 50 and 52, respectively, and a second forward concave portion 54 and 56, respectively, which curves outwardly toward corresponding outer edges 36 and 38 of legs 26 and 28, respectively. Concave portions 54 and 56

together define a generally elliptical opening in bait structure 10, and linear portions 50 and 52 define a rearwardly divergent gap between legs 26 and 28 extending between the elliptical opening and the rearward end of bait structure 10.

Upper surfaces 22 and 24 of legs 26 and 28, respectively, and the upper surface 20 of head 12, include a plurality of upwardly extending projections or nipples 58 which are arranged in parallel, spaced rows 60a-n. Rows 60a-n extend in a direction transverse to the longitudinal axis of artificial bait structure 10. In the preferred embodiment, each nipple 58 is generally cylindrical in shape. However, it is contemplated as being within the scope of the present invention to provide nipples 58 with any other satisfactory shape, such as a semi-spherical shape. Nipples 58 are provided in order to increase the surface area of the upper surface 20 of head 12 and the surface area of the upper surfaces 22 and 24 of legs 26 and 28, respectively, for reasons hereinafter described.

Legs 26 and 28 further include second, generally planar, bottom surfaces 62 and 64, respectively. Bottom surfaces 62 and 64 of legs 26 and 28, respectively, also includes a plurality of downwardly extending projections or nipples 66 arranged in parallel, spaced rows 68a-h. Rows 68a-h extend in a direction transverse to the longitudinal axis of artificial bait structure 10. In the preferred embodiment, each nipple 66 is generally cylindrical in shape. However, it is contemplated as being within the scope of the present invention to provide nipples 66 with any other satisfactory shape, such as a semi-spherical shape. As with nipples 58, nipples 66 are provided on bottom surfaces 62 and 64 of legs 26 and 28, respectively, in order to increase the surface area of the bottom surfaces 62 and 64, for reasons hereinafter described.

Bottom surfaces 62 and 64 of legs 26 and 28, respectively, include outer ribs 70 and 72, respectively, which depend downwardly from the outer edges 36 and 38 of legs 26 and 28, respectively, and which extend between head 12 and rearward ends 40 and 42 of legs 26 and 28, respectively. Each rib 70 and 72 provides a certain amount of stiffness to the outer edge of its respective leg relative to the thin inner portion of the leg, and also increases the surface area to the bottom surfaces 62 and 64 of legs 26 and 28, respectively. Ribs 70 and 72 also function to direct water toward the bottom surfaces 62 and 64 of legs 26 and 28, respectively, as artificial bait structure 10 is drawn through the water. By directing water toward the bottom

surfaces 62 and 64 of legs 26 and 28, respectively, artificial bait structure 10 is urged upwardly in the water.

Referring to Figs. 2, 4 and 7-8, the joined portion 48 of artificial bait structure 10, is generally planar and is interconnected to head 12 by a thickened portion 76 which strengthens the connection of legs 26 and 28 to head 12. Thickened portion 76 also directs water toward the bottom surfaces 62 and 64 of legs 26 and 28, respectively, as artificial bait structure 10 is drawn through the water so as to urge the artificial bait structure 10 upwardly in the water.

Referring to Fig. 7, a fishing jig for use with the present invention is generally designated by the reference numeral 80. As illustrated, fishing jig 80 is generally comprised of a molded head 82, a hook member 84, and an attachment eye 86. Hook member 84 includes a generally straight shank 88 which projects rearwardly along an axis from the tail end of molded head 82. Shank 88 extends rearwardly until it is bent upward to create a curved section 90. Curved section 90 forms a generally semi-cylindrical configuration and is joined to a tail section 92 that extends forward and generally parallel to shank 88. In a preferred embodiment, the tail section 92 terminates at a barb 94. As is known, barb 94 is placed on tail section 92 to securely hold hook 84 in the mouth of the fish and prevent removal therefrom.

Molded head 82 includes a body 96 which is generally spherical in shape. As seen in Fig. 7, shank 88 of hook member 84 is joined to spherical body 96 at approximately the spherical equator of body 96. Also joined to the spherical body 96 is attachment eye 86. The attachment eye 86 defines an opening 98 therethrough in which a fishing line 100 is attached.

Attachment eye 86 is generally positioned along an axis passing through the center of spherical body 96. The attachment eye 86 can be attached to spherical body 96 by any conventional means such as welding, or preferably, the attachment eye 86 can be formed at the end of shank 88, which may extend through molded head 82. As such, a portion of shank 88 containing attachment eye 86 protrudes from molded head 82 such that attachment eye 86 is securely mounted to spherical body 96, as is shown.

In operation, fishing line 100 extends through opening 98 in attachment eye 86 and a knot 102 is formed in fishing line 100 so as to interconnect fishing line 100 with fishing jig 80. Tail section 92 of hook member 84 is inserted through the head 12 of artificial bait structure 10 such that head 12 is captured on hook member 84, as

shown in Fig. 7. Head 12 is partially received on shank 88 and on curved section 90 such that barb 94 of hook member 84 is spaced from the upper surface 20 of head 12, so as not to interfere with the setting of hook member 84 in the mouth of a fish.

As is conventional, a fisherman casts fishing line 100 and hence fishing jig 80 and artificial bait structure 10 attached thereto, into the water and allows fishing jig 80 and artificial bait structure 10 to partially sink toward the bottom of the lake or river. Once fishing jig 80 and artificial bait structure 10 has reached a predetermined depth, the fisherman begins to reel in the fishing line 100. As the fisherman begins to reel in the fishing line 100, tension is placed on the fishing line 100 and causes fishing jig 80 and artificial bait structure 10 to assume their operative position of Fig. 7.

As fishing line 100 is reeled in by the fisherman, the fishing jig 80 and the artificial bait structure 10 travel forwardly through the water. As water strikes upper and lower portions 32 and 34, respectively of head outer edge 30, together with upper surface 20 and lower surface 18 of head 12, turbulence is created in the water. The agitated water strikes upper surfaces 22 and 24 of legs 26 and 28, respectively, and bottom surfaces 62 and 64 of legs 26 and 28, respectively, such that the legs 26 and 28 begin to flap or flutter upwardly and downwardly in the water, as shown in phantom in Fig. 8. As the water flows horizontally across upper surfaces 22 and 24 of legs 26 and 28, respectively, and bottom surfaces 62 and 64 of legs 26 and 28, respectively, the water engages nipples 58 on leg upper surfaces 22 and 24 and engages nipples 66 projecting from leg bottom surfaces 62 and 64. Such contact of the water with nipples 58 and 66 functions to increase and enhance turbulence of the water, thus facilitating and enhancing the fluttering effect. In addition, the agitated water strikes flexible projections 35 and 37 extending from rearward ends 40 and 42, respectively, of legs 26 and 28, respectively. Such contact of the water with flexible projections 35 and 37 also further facilitates the fluttering effect and causes twisting action of legs 26 and 28 relative to their respective longitudinal axes.

In addition, as the artificial bait structure 10 is drawn through the water, ribs 70 and 72 extending adjacent to the outer edges 36 and 38 of legs 26 and 28, respectively, and thickened portion 76 of artificial bait structure 10, function to cup the water flowing therepast, so as to urge the water into the gap between the linear inner edge portions 50 and 52 of legs 26 and 28, respectively. By urging the water between the linear inner edge portions 50 and 52 of legs 26 and 28, respectively, the water separates legs 26 and 28, as shown in phantom in Fig. 9.

With legs 26 and 28 separated, the cupping effect caused by ribs 70 and 72 of legs 26 and 28, respectively, and thickened portion 76, dissipates. Consequently, the water engages outer edges 36 and 38, and ribs 70 and 72 of legs 26 and 28, respectively, thereby urging legs 26 and 28 back together, such that the inner edge linear portion 50 and 52 of legs 26 and 28, respectively, are moved into abutment, as shown in phantom in Fig. 9. The process is repeated as the artificial bait structure is drawn through the water. By combining the upward-downward fluttering movement of the legs 26 and 28 with continual lateral movement of legs 26 and 28 apart and together, artificial bait structure 10 simulates the movement of live bait and functions to effectively attract fish and agitate the fish into striking bait structure 10.

In addition to causing the continual lateral movement of legs 26 and 28, the cupping effect causes an increased amount of water to strike the bottom surfaces 62 and 64 of legs 26 and 28, respectively, in an upward direction. Due to the substantial surface area of bottom surfaces 62 and 64 of each leg 26 and 28, respectively, the water flowing past these surfaces 62 and 64 urges artificial bait structure 10 upward in the water. Such upward movement of the artificial bait structure 10 in the water discourages travel of fishing jig 10 near the bottom of the lake or river wherein hook 84 may become entangled in the weeds.

Various modes of carrying out the invention are contemplated as being in the scope of the following claims, particularly pointing out and distinctly claiming the subject matter regarded as the invention.